Experiential Learning

Experiential learning is inductive, learner centered, and activity oriented. Personalized reflection about an experience and the formulation of plans to apply learning to other contexts are critical factors in effective experiential learning. The emphasis in experiential learning is on the process of learning and not on the product.
Experiential learning can be viewed as a cycle consisting of five phases, all of which are necessary:

- experiencing (an activity occurs);
- sharing or publishing (reactions and observations are shared);
- analyzing or processing (patterns and dynamics are determined);
- inferring or generalizing (principles are derived); and,
- applying (plans are made to use learning in new situations).

Instructional Strategies:

- Field Trips - A field trip is a structured activity that occurs outside the classroom. It can be a brief observational activity or a longer more sustained investigation or project.
- Narratives - Narrative essays are told from a defined point of view, often the author's, so there is feeling as well as specific and often sensory details provided to get the reader involved in the elements and sequence of the story.
- Conducting Experiments – Experiments allows students to form hypotheses, test the hypotheses, draw conclusions and provide recommendations for further testing or application.
- Simulations - Simulations are instructional scenarios where the learner is placed in a "world" defined by the teacher. They represent a reality within which students interact. The teacher controls the parameters of this "world" and uses it to achieve the desired instructional results. Simulations are in way, a lab experiment where the students themselves are the test subjects. They experience the reality of the scenario and gather meaning from it.
- Games – Games allow students to engage the content interactively and sometimes competitively.
- Storytelling – Storytelling allows students to “situate” the content in a setting, and manipulate and apply the concepts in familiar and new ways.
- Focused Imaging - Imaging exercises nurture and develop students' creative potentials. Teachers can encourage divergent thinking by asking students to transform a teacher guided image into several others of their own creation, to imagine various solutions for spatial or design problems, or to visualize a particular scene or event and then imagine what might happen next.
- Field Observations – Field observations hone student skills in capturing details of the object in its natural setting.
- Role-playing - Role playing allows students to take risk-free positions by acting out characters in hypothetical situations. It can help them understand the range of concerns, values, and positions held by other people. Role playing is an enlightening and interesting way to help students see a problem from another perspective.
- Synectics - The term Synectics from the Greek word synectikos which means "bringing forth together" or "bringing different things into unified connection." Since creativity involves the coordination of things into new structures, every creative thought or action draws on synectic thinking. Synectic thinking is the process of discovering the links that unite seemingly disconnected elements. It is a way of

mentally taking things apart and putting them together to furnish new insight for all types of problems. It is a creative problem solving technique which uses analogies. Making the familiar strange, and then making the strange familiar.

- Model Building – Model building challenges learners to understand the "parts" of a whole, and then to bring them together into a functioning unit. The model can duplicate an existing structure or concept, or can reflect a different generation of the structure or concept.
- Surveys – Surveys allow the learner to gather and aggregate data relative to an object or concept. Hypotheses about the object or concept are tested.

Glossary of Marzano Strategies

Identifying Similarities and Differences – a group of instructional strategies that require students to compare, classify, create metaphors and create analogies as a means of acquiring knowledge about the content or process under consideration.

Summarizing and Note Taking – a group of instructional strategies that require students to analyze, extract their own meaning from, and apply organization or structure to the content or process under consideration.

Reinforcing Effort and Providing Recognition – a group of instructional strategies that cause students to recognize in real terms that effort is connected to achievement. Recognition is used to reinforce efforts toward that achievement.

Homework and Practice – instructional techniques to provide students with opportunities to deepen their understanding and skills. Homework has a clearly articulated purpose and outcome, and feedback on it is specific and of high quality. Practice allows for feedback and adaptation or shaping of the knowledge, skill or process.

Nonlinguistic Representations – a group of instructional strategies that makes use of nonlinguistic representations such as graphic representations, physical models, mental imagery, pictures and pictographs and forms of kinesthetic activity to elaborate on the knowledge acquisition targets.

Cooperative Learning – use of small groups, heterogeneously organized, to interdependently complete a sufficiently complex learning exercise.

Setting Objectives and Providing Feedback – goals are set in concert with standards, but provide means for students to personalize and take ownership of them. Feedback on progress toward these goals is corrective, timely, specific to the performance criterion, and not solely teacher provided. Criterion is public, usually in the form of a rubric, and it enables students to self-assess and improve. Instructional strategies include projects and presentations.

Generating and Testing Hypotheses – a group of instructional strategies that cause students to extend (construct) knowledge by deductively or inductively reasoning and subsequently testing ideas. Explanation of rationale and findings is required.

Cues, Questions, and Advance Organizers – a group of instructional strategies used to stimulate students' prior knowledge. Focus is placed on important ideas, questions are generally of higher order (analysis) rather than lower order (recall), sufficient "wait time" is given for well-constructed answers, and questions help to "set" students for the learning that is to begin.

Project Gems: Goals for Enhancing the Mind and the Spirit
Smaller Learning Communities Grant – Instructional Audit

As you are aware, an Instructional Unit Planning Manual, aligned with the model offered by Dr. Robert Marzano, is currently under development as part of the work of the Smaller Learning Communities Grant. A portion of the evaluation planned for that grant requires that an audit of instructional strategies be conducted for all freshman classrooms. The purpose for the audit is to form a baseline against which change toward strategies outlined in the Instructional Unit Planning Manual may be assessed.

Individual data from this audit will be viewed only by the outside evaluators and outcomes will be shared only as aggregated data. In no way will data drawn from this baseline audit be used in the evaluation of individual teachers.

Glossary of Strategies

(Please consult the Marzano text if further explanation is desired.)

Identifying Similarities and Differences – a group of instructional strategies that require students to compare, classify, create metaphors and create analogies as a means of acquiring knowledge about the content or process under consideration.

Summarizing and Note Taking – a group of instructional strategies that require students to analyze, extract their own meaning from, and apply organization or structure to the content or process under consideration.

Reinforcing Effort and Providing Recognition – a group of instructional strategies that cause students to recognize in real terms that effort is connected to achievement. Recognition is used to reinforce efforts toward that achievement.

Homework and Practice – instructional techniques to provide students with opportunities to deepen their understanding and skills. Homework has a clearly articulated purpose and outcome, and feedback on it is specific and of high quality. Practice allows for feedback and adaptation or shaping of the knowledge, skill or process.

Nonlinguistic Representations – a group of instructional strategies that makes use of nonlinguistic representations such as graphic representations, physical models, mental imagery, pictures and pictographs and forms of kinesthetic activity to elaborate on the knowledge acquisition targets.

Cooperative Learning – use of small groups, heterogeneously organized, to interdependently complete a sufficiently complex learning exercise.

Setting Objectives and Providing Feedback – goals are set in concert with standards, but provide means for students to personalize and take ownership of them. Feedback on progress toward these goals is corrective, timely, specific to the performance criterion, and not solely teacher provided. Criterion is public, usually in the form of a rubric, and it enables students to self-assess and improve.

Generating and Testing Hypotheses – a group of instructional strategies that cause students to extend (construct) knowledge by deductively or inductively reasoning and subsequently testing ideas. Explanation of rationale and findings is required.

Cues, Questions, and Advance Organizers – a group of instructional strategies used to stimulate students' prior knowledge. Focus is placed on important ideas, questions are generally of higher order (analysis) rather than lower order (recall), sufficient "wait time" is given for well-constructed answers, and questions help to "set" students for the learning that is to begin.

I am a faculty member of: Terre Haute North _____ Terre Haute South _____ Department: _____

Number of years teaching experience: _____ Number of years experience teaching freshmen: _____

Subjects I am teaching to freshmen this academic year: _____

As you complete the following items, please indicate the strategies **used prior to the first visit of Dr. Marzano.** Each category is discrete, and because you may use multiple strategies all the time, there should be no attempt to manipulate the categories to reach 100% as a total for all categories. For instance, I might use Summarizing and Note Taking 100% of the time for all units I teach, and Homework and Practice 100% of the time for all the units I teach, while only using Cooperative Learning for 30% of the units I teach.

	Approximate percent of the time I use this strategy in EACH UNIT of instruction.								
Instructional Strategy	0-10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	90-100%
Identifying Similarities and Differences									
Summarizing and Note Taking									
Reinforcing Effort and Providing Recognition									
Homework and Practice									
Nonlinguistic Representations									
Cooperative Learning									
Setting Objectives and Providing Feedback									
Generating and Testing Hypotheses									
Cues, Questions, and Advance Organizers									
Other (please specify in comments section)									

Comments (please indicate other methods used or provide other feedback you wish to be taken into account by the outside evaluator):

K12 Elementary Education Learn More About a K12 Education & 100% Tuition-Free Curriculum! www.K12.com/Indiana

PhD Instructional Design Further your career with a PhD in Instructional Design. Apply now! www.keiser-education.com/Graduate

Org Chart Templates Create Perfect Organization Charts See Examples. Free Download! www.SmartDraw.com AdChoices

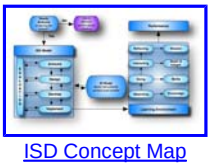
Bloom's Taxonomy of Learning Domains

Contents

- Cognitive Domain
- Affective Domain
- Psychomotor Domain
- Bloom's Revised Taxonomy
- Next Steps
- Referencea

Related Resources

Instructional Design Toolkit



ISD Concept Map

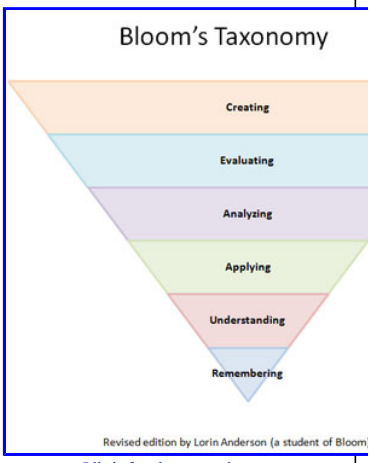
The Three Types of Learning

There is more than one type of learning. A committee of colleges, led by Benjamin Bloom (1956), identified three domains of educational activities:

- **Cognitive**: mental skills (*Knowledge*)
- **Affective**: growth in feelings or emotional areas (*Attitude*)
- **Psychomotor**: manual or physical skills (*Skills*)

Since the work was produced by higher education, the words tend to be a little bigger than we normally use. Domains can be thought of as categories. Trainers often refer to these three categories as KSA (Knowledge, Skills, and Attitude). This taxonomy of learning behaviors can be thought of as "the goals of the learning process." That is, after a learning episode, the learner should have acquired new skills, knowledge, and/or attitudes.

The committee also produced an elaborate compilation for the cognitive and affective domains, but none for the psychomotor domain. Their explanation for this oversight was that they have little experience in teaching manual skills within the college level (I guess they never thought to check with their sports or drama departments).



Click for larger chart

This compilation divides the three domains into subdivisions, starting from the simplest behavior to the most complex. The divisions outlined are not absolutes and there are other systems or hierarchies that have been devised in the educational and training world. However, Bloom's taxonomy is easily understood and is probably the most widely applied one in use today.

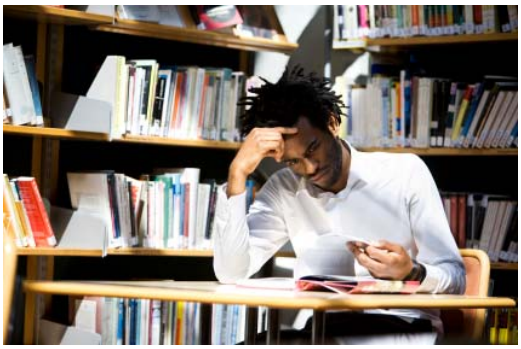
Instructional Design Cer
Certificate in Instructional Design
George Washington U.
www.EdDegree.com

Special Ed Strategies
Top Rated Special Education Degre
NCATE Accredited. Apply!
Indiana.WGU.edu

Common Core Tips
Use these insider secrets to bring
Core into your classroom
TeachingChannel.org

Digital Age Leadership
Take action at the ISTE Leadership
October 2012
isteLeadershipForum.org

Cognitive Domain



The cognitive domain (Bloom, 1956) involves knowledge and the development of intellectual skills. This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills. There are six major categories, which are listed in order below, starting from the simplest behavior to the most complex. The categories can be thought of as degrees of difficulties. That is, the first ones must normally be mastered before the next ones can take place.

Category	Example and Key Words (verbs)
Knowledge: Recall data or information.	**Examples**: Recite a policy. Quote prices from memory to a customer. Knows the safety rules. **Key Words**: defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states.
Comprehension: Understand the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words.	**Examples**: Rewrites the principles of test writing. Explain in one's own words the steps for performing a complex task. Translates an equation into a computer spreadsheet. **Key Words**: comprehends, converts, defends, distinguishes, estimates, explains, extends, generalizes, gives an example, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates.
Application: Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the work place.	**Examples**: Use a manual to calculate an employee's vacation time. Apply laws of statistics to evaluate the reliability of a written test. **Key Words**: applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies,

	operates, predicts, prepares, produces, relates, shows, solves, uses.
Analysis: Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences.	**Examples**: Troubleshoot a piece of equipment by using logical deduction. Recognize logical fallacies in reasoning. Gathers information from a department and selects the required tasks for training. **Key Words**: analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates.
Synthesis: Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure.	**Examples**: Write a company operations or process manual. Design a machine to perform a specific task. Integrates training from several sources to solve a problem. Revises and process to improve the outcome. **Key Words**: categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes.
Evaluation: Make judgments about the value of ideas or materials.	**Examples**: Select the most effective solution. Hire the most qualified candidate. Explain and justify a new budget. **Key Words**: appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, supports.

Affective Domain

The affective domain (Krathwohl, Bloom, Masia, 1973) includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes. The five major categories are listed from the simplest behavior to the most complex:

Category	Example and Key Words (verbs)
Receiving Phenomena: Awareness, willingness to hear, selected attention.	**Examples**: Listen to others with respect. Listen for and remember the name of newly introduced people. **Key Words**: asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, uses.
Responding to Phenomena: Active participation on the part of the learners. Attends and reacts to a particular phenomenon. Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (motivation).	**Examples**: Participates in class discussions. Gives a presentation. Questions new ideals, concepts, models, etc. in order to fully understand them. Know the safety rules and practices them. **Key Words**: answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes.
Valuing: The worth or value a person attaches to a particular object, phenomenon, or behavior. This ranges from simple acceptance to the more complex state of commitment. Valuing is based on the internalization of a set of specified values, while clues to these values are expressed in the learner's overt behavior and are often identifiable.	**Examples**: Demonstrates belief in the democratic process. Is sensitive towards individual and cultural differences (value diversity). Shows the ability to solve problems. Proposes a plan to social improvement and follows through with commitment. Informs management on matters that one feels strongly about. **Key Words**: completes, demonstrates, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works.
Organization: Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating an unique value system. The emphasis is on comparing, relating, and synthesizing values.	**Examples**: Recognizes the need for balance between freedom and responsible behavior. Accepts responsibility for one's behavior. Explains the role of systematic planning in solving problems. Accepts professional ethical standards. Creates a life plan in harmony with abilities, interests, and beliefs. Prioritizes time effectively to meet the needs of the organization, family, and self. **Key Words**: adheres, alters, arranges, combines, compares, completes, defends, explains, formulates, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes.
Internalizing values (characterization): Has a value system that controls their behavior. The behavior is pervasive, consistent, predictable, and most importantly, characteristic of the learner. Instructional objectives are concerned with the student's general	**Examples**: Shows self-reliance when working independently. Cooperates in group activities (displays teamwork). Uses an objective approach in problem solving. Displays a professional commitment to ethical practice on a daily basis. Revises judgments and changes behavior in light of new evidence. Values people for what they are, not how they look.

patterns of adjustment (personal, social, emotional).	**Key Words**: acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies.

Psychomotor Domain

The psychomotor domain (Simpson, 1972) includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution. The seven major categories are listed from the simplest behavior to the most complex:

Category	Example and Key Words (verbs)
Perception: The ability to use sensory cues to guide motor activity. This ranges from sensory stimulation, through cue selection, to translation.	**Examples**: Detects non-verbal communication cues. Estimate where a ball will land after it is thrown and then moving to the correct location to catch the ball. Adjusts heat of stove to correct temperature by smell and taste of food. Adjusts the height of the forks on a forklift by comparing where the forks are in relation to the pallet. **Key Words**: chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects.
Set: Readiness to act. It includes mental, physical, and emotional sets. These three sets are dispositions that predetermine a person's response to different situations (sometimes called mindsets).	**Examples**: Knows and acts upon a sequence of steps in a manufacturing process. Recognize one's abilities and limitations. Shows desire to learn a new process (motivation). NOTE: This subdivision of Psychomotor is closely related with the “Responding to phenomena” subdivision of the Affective domain. **Key Words**: begins, displays, explains, moves, proceeds, reacts, shows, states, volunteers.
Guided Response: The early stages in learning a complex skill that includes imitation and trial and	**Examples**: Performs a mathematical equation as demonstrated. Follows

error. Adequacy of performance is achieved by practicing.	instructions to build a model. Responds hand-signals of instructor while learning to operate a forklift. **Key Words**: copies, traces, follows, react, reproduce, responds
Mechanism: This is the intermediate stage in learning a complex skill. Learned responses have become habitual and the movements can be performed with some confidence and proficiency.	**Examples**: Use a personal computer. Repair a leaking faucet. Drive a car. **Key Words**: assembles, calibrates, constructs, dismantles, displays, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes, sketches.
Complex Overt Response: The skillful performance of motor acts that involve complex movement patterns. Proficiency is indicated by a quick, accurate, and highly coordinated performance, requiring a minimum of energy. This category includes performing without hesitation, and automatic performance. For example, players are often utter sounds of satisfaction or expletives as soon as they hit a tennis ball or throw a football, because they can tell by the feel of the act what the result will produce.	**Examples**: Maneuvers a car into a tight parallel parking spot. Operates a computer quickly and accurately. Displays competence while playing the piano. **Key Words**: assembles, builds, calibrates, constructs, dismantles, displays, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes, sketches. NOTE: The Key Words are the same as Mechanism, but will have adverbs or adjectives that indicate that the performance is quicker, better, more accurate, etc.
Adaptation: Skills are well developed and the individual can modify movement patterns to fit special requirements.	**Examples**: Responds effectively to unexpected experiences. Modifies instruction to meet the needs of the learners. Perform a task with a machine that it was not originally intended to do (machine is not damaged and there is no danger in performing the new task). **Key Words**: adapts, alters, changes, rearranges, reorganizes, revises, varies.
Origination: Creating new movement patterns to fit a particular situation or specific problem. Learning outcomes emphasize creativity based upon highly developed skills.	**Examples**: Constructs a new theory. Develops a new and comprehensive training programming. Creates a new gymnastic routine. **Key Words**: arranges, builds, combines, composes, constructs, creates, designs, initiate, makes, originates.

Other Psychomotor Domain Taxonomies

As mentioned earlier, the committee did not produce a compilation for the psychomotor domain model, but others have. The one discussed above is by Simpson (1972). There are two other popular versions:

Dave's (1975):

- **Imitation** — Observing and patterning behavior after someone else. Performance may be of low quality. Example: Copying a work of art.
- **Manipulation** — Being able to perform certain actions by following instructions and practicing. Example: Creating work on one's own, after taking lessons, or reading about it.
- **Precision** — Refining, becoming more exact. Few errors are apparent. Example: Working and reworking something, so it will be "just right."
- **Articulation** — Coordinating a series of actions, achieving harmony and internal consistency. Example: Producing a video that involves music, drama, color, sound, etc.
- **Naturalization** — Having high level performance become natural, without needing to think much about it. Examples: Michael Jordan playing basketball, Nancy Lopez hitting a golf ball, etc.

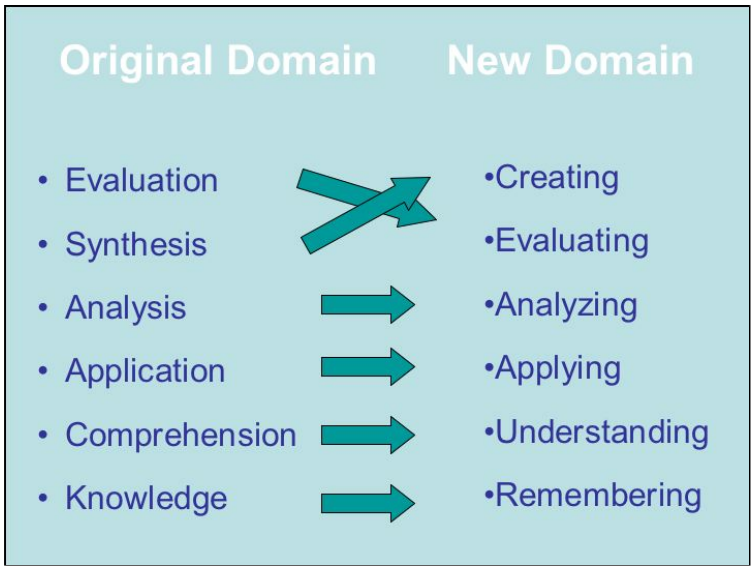
Harrow's (1972):

- **Reflex movements** — Reactions that are not learned.
- **Fundamental movements** — Basic movements such as walking, or grasping.
- **Perception** — Response to stimuli such as visual, auditory, kinesthetic, or tactile discrimination.
- **Physical abilities** — Stamina that must be developed for further development such as strength and agility.
- **Skilled movements** — Advanced learned movements as one would find in sports or acting.
- **No discursive communication** — Effective body language, such as gestures and facial expressions.

Bloom's Revised Taxonomy

Lorin Anderson, a former student of Bloom, revisited the cognitive domain in the learning taxonomy in the mid-nineties and made some changes, with perhaps the two most prominent ones being, 1) changing the names in the six categories from noun to verb forms, and 2) slightly rearranging them (Pohl, 2000).

This new taxonomy reflects a more active form of thinking and is perhaps more accurate:



Category	Example and Key Words (verbs)
Remembering: Recall previous learned information.	**Examples**: Recite a policy. Quote prices from memory to a customer. Knows the safety rules. **Key Words**: defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states.
Understanding: Comprehending the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words.	**Examples**: Rewrites the principles of test writing. Explain in one's own words the steps for performing a complex task. Translates an equation into a computer spreadsheet. **Key Words**: comprehends, converts, defends, distinguishes, estimates, explains, extends, generalizes, gives an example, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates.

Applying: Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the work place.	**Examples**: Use a manual to calculate an employee's vacation time. Apply laws of statistics to evaluate the reliability of a written test. **Key Words**: applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses.
Analyzing: Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences.	**Examples**: Troubleshoot a piece of equipment by using logical deduction. Recognize logical fallacies in reasoning. Gathers information from a department and selects the required tasks for training. **Key Words**: analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates.
Evaluating: Make judgments about the value of ideas or materials.	**Examples**: Select the most effective solution. Hire the most qualified candidate. Explain and justify a new budget. **Key Words**: appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, supports.
Creating: Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure.	**Examples**: Write a company operations or process manual. Design a machine to perform a specific task. Integrates training from several sources to solve a problem. Revises and process to improve the outcome. **Key Words**: categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes.

Next Steps

Learning Strategies: Using Bloom's Taxonomy

Instructional Design Toolkit

References

Bloom B. S. (1956). *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain.* New York: David McKay Co Inc.

Dave, R. H. (1975). *Developing and Writing Behavioral Objectives.* (R. J. Armstrong, ed.). Tucson, Arizona: Educational Innovators Press.

Harrow, A. (1972) *A Taxonomy of Psychomotor Domain: A Guide for Developing Behavioral Objectives*. New York: David McKay.

Krathwohl, D. R., Bloom, B. S., & Masia, B. B. (1973). *Taxonomy of Educational Objectives, the Classification of Educational Goals. Handbook II: Affective Domain.* New York: David McKay Co., Inc.

Pohl, M. (2000). *Learning to Think, Thinking to Learn: Models and Strategies to Develop a Classroom Culture of Thinking.* Cheltenham, Vic.: Hawker Brownlow.

Simpson E. J. (1972). *The Classification of Educational Objectives in the Psychomotor Domain.* Washington, DC: Gryphon House.

Notes

Search

Updated July 5, 2010. Created June 5, 1999.

Find out more about me (copyright, APA formatting, etc.) ~ Email me at donclark@nwlink.com ~ A Big Dog, Little Dog and Knowledge Jump Production

Learning Strategies or Instructional Strategies

Learning or instructional strategies determine the approach for achieving the learning objectives and are included in the pre-instructional activities, information presentation, learner activities, testing, and follow-through. The strategies are usually tied to the needs and interests of students to enhance learning and are based on many types of learning styles (Ekwensi, Moranski, &Townsend-Sweet, 2006).

Thus the learning objectives point you towards the instructional strategies, while the instructional strategies will point you to the medium that will actually deliver the instruction, such as elearning, self-study, classroom, or OJT. However, do not fall into the trap of using only one medium when designing your course. . . use a blended approach.

Although some people use the terms interchangeably, objectives, strategies, and media, all have separate meanings. For example, your learning objective might be "Pull the correct items for a customer order;" the instructional strategies are a demonstration, have a question and answer period, and then receive hands-on practice by actually performing the job, while the media might be a combination of elearning and OJT.

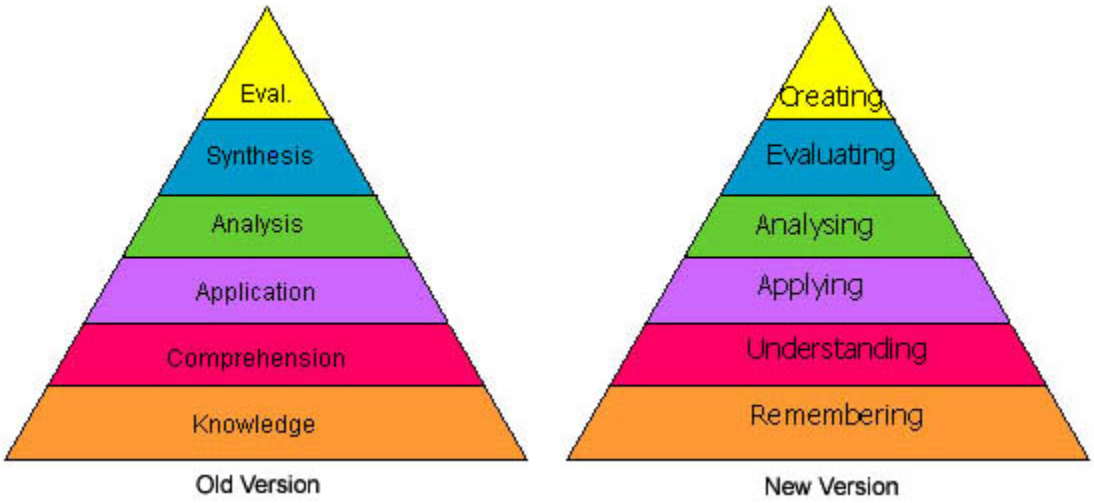
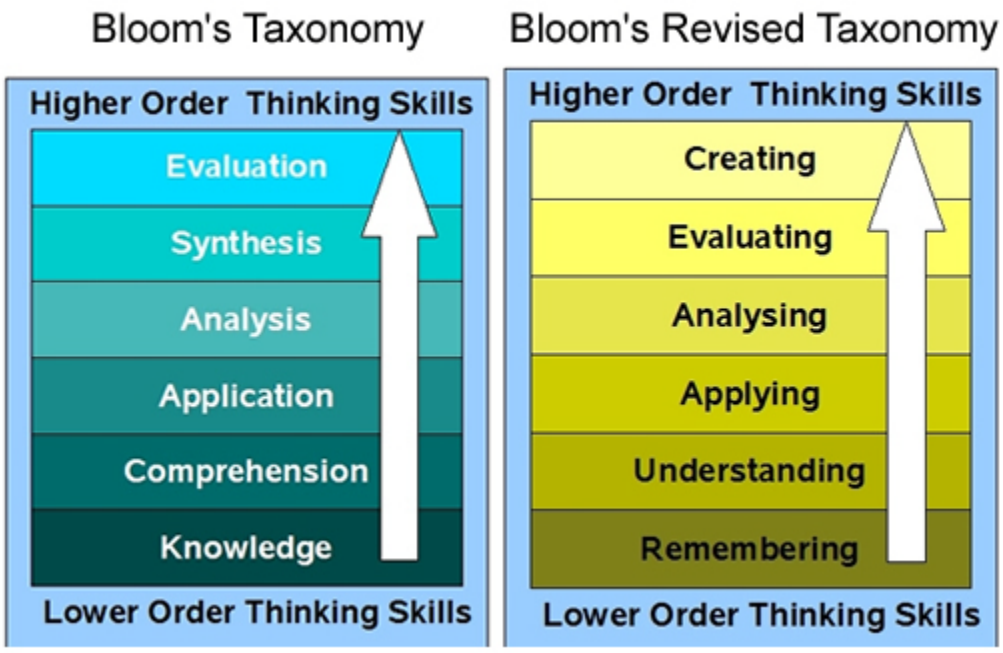
The *Instructional Strategy Selection Chart* shown below is a general guideline for selecting the learning strategy. It is based on Bloom's Taxonomy (Learning Domains). The matrix generally runs from the passive learning methods (top rows) to the more active participation methods (bottom rows. Bloom's Taxonomy (the right three columns) runs from top to bottom, with the lower level behaviors being on top and the higher behaviors being on the bottom. That is, there is a direct correlation in learning:

- Lower levels of performance can normally be taught using the more passive learning methods.
- Higher levels of performance usually require some sort of action or involvement by the learners.

Instructional Strategy Selection Chart

Instructional Strategy	**Cognitive Domain** (Bloom, 1956)	**Affective Domain** (Krathwohl, Bloom, & Masia, 1973)	**Psychomotor Domain** (Simpson, 1972)
Lecture, reading, audio/visual, demonstration, or guided observations, question and answer period	1. Knowledge	1. Receiving phenomena	1. Perception 2. Set
Discussions, multimedia CBT, Socratic didactic method, reflection. Activities such as surveys, role playing, case studies, fishbowls, etc.	2. Comprehension 3. Application	2. Responding to phenomena	3. Guided response 4. Mechanism
On-the-Job-Training (OJT), practice by doing (some direction or coaching is required), simulated job settings (to include CBT simulations)	4. Analysis	3. Valuing	5. Complex response
Use in real situations. Also may be trained by using several high level activities coupled with OJT.	5. Synthesis	4. Organize values into priorities	6. Adaptation
Normally developed on own (informal learning) through self-study or learning through mistakes, but mentoring and coaching can speed the process.	6. Evaluation	5. Internalizing values	7. Origination

Bloom's Taxonomy



Bloom's Taxonomy